

Message

From: d'Almeida, Carolyn K. [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=9EC4401AFA1846DD93D52A0DDA973581-CDALMEID]
Sent: 6/29/2016 8:12:15 PM
To: Henning, Loren [Henning.Loren@epa.gov]
Subject: RE: ST12 proposed plan evolution over time

At home. No meetings today, need to do research for Thomas; commute for no reason disrupts my thought process. Do you know if my mail is being forwarded to warehouse yet? I think Rosemarie said she would not be using it much as mold issues there was effecting her breathing. Am I the only one planning to use it?

From: Henning, Loren
Sent: Wednesday, June 29, 2016 1:06 PM
To: d'Almeida, Carolyn K. <dAlmeida.Carolyn@epa.gov>
Subject: RE: ST12 proposed plan evolution over time

Are you at the warehouse today?

From: d'Almeida, Carolyn K.
Sent: Wednesday, June 29, 2016 12:41 PM
To: Henning, Loren <Henning.Loren@epa.gov>
Subject: FW: ST12 proposed plan evolution over time

fyi

From: Davis, Eva
Sent: Wednesday, June 29, 2016 12:30 PM
To: d'Almeida, Carolyn K. <dAlmeida.Carolyn@epa.gov>; Butler, Thomas <Butler.Thomas@epa.gov>
Cc: Wayne Miller <Miller.Wayne@azdeq.gov>; Dan Pope <DPope@css-dynamac.com>
Subject: RE: ST12 proposed plan evolution over time

They are still not meeting the less than 10% of peak recovery rate on a consistent basis. The latest progress report (for the week ending June 17) shows that the SVE system running now was recovering on average 3,690 lbs/day from June 2 – 10, and 2,300 lbs/day from June 10 – 17. Peak total recovery (including vapors, LNAPL, and dissolved phase) was 22,506 lbs/day, so since June 2 they have been extracting 10 – 16% of peak. They have still not met their criteria for shutdown, even though they have not injected more energy since March 4 -

From: d'Almeida, Carolyn K.
Sent: Wednesday, June 29, 2016 2:02 PM
To: Butler, Thomas <Butler.Thomas@epa.gov>
Cc: Davis, Eva <Davis.Eva@epa.gov>; Wayne Miller <Miller.Wayne@azdeq.gov>
Subject: RE: ST12 proposed plan evolution over time

"Diminishing effectiveness of contaminant mass removal" sounds very similar to "diminishing returns" which is a normal criterion for shutdown of a thermal system. Usually, it is also understood more precisely as "asymptotic" mass removal. (Smart people wouldn't want to spend millions of dollars on construction of a thermal system and then haggle over shutdown criteria at the end at the time when they are getting most of the benefit of their capital investment, and wanting assurance that they won't have to come back out.) We wouldn't have reason to dispute this change to the language

in the proposed plan. But amec redefined the removal criteria in the RD/RA workplan to "less than 10% of peak recovery rate", and they didn't even meet that criterion, as we will demonstrate.

"Removal of most of the LNAPL" is a completely different objective from SEE shutdown criteria; it's a criterion for transition to EBR. It is an acknowledgement that AF/Amec understood from the beginning that EBR would not be effective unless most of the LNAPL is first removed. It is more related to the RAO for the remedy. In the RODA language this changed to "attainment of benzene MCL within 20 years." Again, this would be generally understood by any EBR vendor that "attainment of benzene MC: within 20 years" via EBR would be impossible unless most of the LNAPL was first removed. Thus, we would not have any reason to dispute this RAO in the RODA. Our main problem with the Draft Final EBR workplan is that it provides no milestones for how they would actually achieve this goal, and does not even establish the baseline conditions for EBR implementation. That was significant part of Dan Popes comments on the draft which they did not address; and the main reason for the stop work order now.

So it is not clear at all that the change to the language below would result in a completely different interpretation of the expectations for SEE. These are different issues that we need to address separately in the dispute statement.

From: Butler, Thomas
Sent: Wednesday, June 29, 2016 11:05 AM
To: d'Almeida, Carolyn K. <dAlmeida.Carolyn@epa.gov>
Subject: RE: ST12 proposed plan evolution over time

Thanks, Carolyn. That is interesting. If you get a chance can you pull the exact sections of the RODA and the Final RD/RA Work Plan that address the shutdown criteria for SEE and the transition to EBR? I have a feeling we will be discussing those at length.

Thanks,

Thomas

From: d'Almeida, Carolyn K.
Sent: Wednesday, June 29, 2016 9:16 AM
To: Butler, Thomas <Butler.Thomas@epa.gov>; Henning, Loren <Henning.Loren@epa.gov>; Herrera, Angeles <Herrera.Angeles@epa.gov>; Minor, Dustin <Minor.Dustin@epa.gov>; Moore, Letitia <Moore.Letitia@epa.gov>
Cc: Davis, Eva <Davis.Eva@epa.gov>
Subject: ST12 proposed plan evolution over time

The evolution of the ST12 proposed plan illustrates how AF/amec has been imperceptibly changing the performance criteria for this remedy over time

From the draft proposed plan (January 2013) After most of LNAPL is removed by SEE, the remedial action would transition to enhanced bioremediation. "Most of the LNAPL" removed was our understanding of the intent of this remedy from the very beginning and established a trust that we have a mutual understanding of the intent of the remedy. However, "Most of the LNAPL" removed" has evolved to currently mean "maybe ½ of the LNAPL removed"

Compare to draft final version (March 2013), where language has

After SEE has achieved its goals, the remedial action
changed would transition to enhanced bioremediation. Enhanced bioremediation "Its goals" is not very clear, but
there is no reason for us to suspect it would be different from "most of the LNAPL removed" as stated
3 months earlier. This is last opportunity provided to the agencies to comment.

Now compare to the final version (April

When the effectiveness of contaminant mass removal by
SEE has diminished, the remedial action will transition
2013): to enhanced bioremediation. Enhanced bioremediation Note that this is the final
version, and no opportunity to comment on this language was provided to the agencies; we would
have to go to dispute to change this?

Carolyn d'Almeida
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US EPA Region 9
(415) 972-3150

"Because a waste is a terrible thing to mind..."